



State Heart Disease and Stroke Prevention Programs Address Pre-hospital Emergency Medical Response



Heart attacks and strokes are life-and-death emergencies. Nearly half of all stroke and heart attack deaths occur before patients are transported to hospitals.¹⁻³ For this reason, pre-hospital emergency medical service (EMS) system organizations and providers are vital partners with public health to reduce death and disability from heart attacks and strokes. Additionally, it is important for the public to recognize the major warning signs and symptoms and the need to immediately call 911.

State Heart Disease and Stroke Prevention Programs Take Action!

State programs collaborate with partners to enhance pre-hospital care for heart attacks and strokes through the following strategies:

- Include the state EMS office when developing state plans to reduce death and disability from heart attacks and strokes.
- Support emergency medical dispatcher training on stroke signs/symptoms, pre-hospital acute stroke assessment, and priority dispatching to hospitals that can comply with stroke treatment guidelines.
- Promote protocols that ensure effective pre-hospital system management of cardiac and stroke patients.
- Advocate state EMS licensing/certification requirements that ensure appropriate initial training and renewal requirements based on the latest treatment guidelines for heart disease and stroke.
- Collaborate with EMS to increase awareness of signs/symptoms.
- Assist the state EMS office and other key partners to communicate the need for universal enhanced (wire-line) and wireless enhanced 911 coverage.
- Support existing efforts to place automated external defibrillators (AEDs) and assist State Office of Rural Health to procure federal resources for rural AEDs and training for appropriate AED use.
- Advocate for enhanced emergency care data collection and use data to identify appropriate systems improvements and training needs.

Examples of Pre-hospital Emergency Medical Response Activities in CDC-Funded State Heart Disease and Stroke Prevention Programs

- All state programs are collaborating with the American Heart Association and others to assess and improve stroke systems of care, including emergency medical services, to reduce death and disability.
- Over half of funded state programs are enhancing training for EMS providers and dispatchers. www.emspi.org*
- Several state programs are collaborating with their state EMS offices on media campaigns to increase awareness of heart attack and stroke signs and symptoms and the need to immediately call 911.

National EMS-related Agencies/Organizations

- The key national EMS entities are the National Highway Traffic Safety Administration (NHTSA), Health Resources and Services Administration (HRSA—Office of Rural Health Policy and Trauma/EMS Systems), National Association of State EMS Directors (NASEMSD), and CDC (National Center for Injury Prevention and Control—NCIPC, and National Institute for Occupational Safety and Health—NIOSH).
- The National Association of EMS Physicians (NAEMSP) and American Public Health Association, with support from NHTSA and HRSA, have outlined opportunities for collaboration between EMS and public health agencies (see EMS and Public Health Bulletin: A Strategy for Enhancing Community Health Care, Oct. 2002). This roundtable series led APHA, NAEMSP, and NASEMSD to establish a Memorandum of Understanding in November 2001.
- NASEMSD leadership is from CVH-funded states; the NASEMSD secretary is the Louisiana EMS director and is strongly involved with the program via the state stroke task force.
- The key EMS organizations/agencies have developed Agendas for the Future (overall, rural/frontier, education, and research) with the common elements of education/training, data, and communications/technology.
- The National Heart, Lung, and Blood Institute's National Heart Attack Alert Program Coordinating Committee is examining how to improve use of 911. <http://www.nhlbi.nih.gov>

For More Information

For additional information on improving pre-hospital response for cardiac and stroke emergencies, please see the following Web sites.

- American Heart Association Emergency Cardiovascular Care Division
<http://www.americanheart.org/presenter.jhtml?identifier=3011796>*
- National Heart Attack Alert Program, National Heart, Lung, and Blood Institute
<http://www.nhlbi.nih.gov/about/nhaap/index.htm>
- American Heart Association/American Stroke Association Recommendations for the Establishment of Stroke Systems of Care (including EMS services)
<http://www.strokeassociation.org/presenter.jhtml?identifier=3028130>*
- Response to Cardiac Arrest and Selected Life-Threatening Medical Emergencies, The Medical Emergency Response Plan for Schools: A Statement for Healthcare Providers, Policymakers, School Administrators, and Community Leaders
<http://circ.ahajournals.org/cgi/content/full/109/2/278>

References

1. Ayala C, Croft JB, Keenan NL, et al. Increasing trends in pre-transport stroke deaths—United States, 1990–1998. *Ethn Dis* 2003;13 (suppl 2):S131-137.
2. Zheng ZJ, Croft JB, Giles WH, Mensah, GA. Sudden cardiac death in the United States, 1989 to 1998. *Circulation*, 2001;104:2158-2163.
3. CDC. State-specific mortality from sudden cardiac death—United States, 1999. *MMWR* 2002;51:123-126.